

<b>3 RECONSTRUCTION MODULE</b>	Page 1 of 2
<b>Division of Forensic Science</b>  <b>FORENSIC IMAGING/AUDIO TRAINING MANUAL</b>	Amendment Designator:
	Effective Date: 22-March-2004
<div> <h3>3 RECONSTRUCTION MODULE</h3> </div> <div> <h4>3.1 Objectives</h4> </div> <div> <ul style="list-style-type: none"> <li>3.1.1 Understand and explain the components of a video cassette and a VCR.</li> <li>3.1.2 Understand and explain the components of an audio cassette and a standard cassette recorder.</li> <li>3.1.3 Understand and explain how video and audio signals are recorded onto magnetic tape.</li> <li>3.1.4 Gain the capability to splice video and audio tapes.</li> </ul> </div> <div> <h4>3.2 Methods of Instruction</h4> </div> <div> <ul style="list-style-type: none"> <li>3.2.1 Lectures <ul style="list-style-type: none"> <li>3.2.1.1 How videos are produced</li> <li>3.2.1.2 Video formats</li> <li>3.2.1.3 How VCRs function</li> <li>3.2.1.4 Evidence handling and note taking</li> </ul> </li> <li>3.2.2 Literature Review <ul style="list-style-type: none"> <li>3.2.2.1 Inglis, Andrew F and Luther, Arch C. <u>Video Engineering</u>, 3<sup>rd</sup> edition, McGraw-Hill, New York, 1999.</li> <li>3.2.2.2 Davies, Adrian and Fennessy, Phil. <u>Digital Imaging</u>, 4<sup>th</sup> edition, Focal Press, Oxford, 2001.</li> <li>3.2.2.3 Blitzer, Herbert L and Jacobia, Jack. <u>Forensic Digital Imaging and Photography</u>, Academic Press, San Diego, 2002.</li> <li>3.2.2.4 Equipment and Software Users Manuals</li> <li>3.2.2.5 Reconstruction, video and audio sections of the Division of Forensic Science - Imaging/Audio Procedure Manual</li> </ul> </li> <li>3.2.3 Demonstration <ul style="list-style-type: none"> <li>• Basic reconstruction techniques will be observed from beginning to end and notes will be taken by the trainee</li> </ul> </li> <li>3.2.4 Laboratory Exercises <ul style="list-style-type: none"> <li>3.2.4.1 Audio tape reconstruction – to include standard cassette and microcassette</li> <li>3.2.4.2 Video tape reconstruction – to include VHS and Hi8</li> <li>3.2.4.3 Casework will be completed by trainee under supervision – content and techniques used will be dependent on the cases submitted</li> </ul> </li> </ul> </div> <div> <h4>3.3 Evaluation</h4> </div> <div> <ul style="list-style-type: none"> <li>3.3.1 Written examination <ul style="list-style-type: none"> <li>3.3.1.1 Paper on how videos are made (concurrent assignment with video module)</li> <li>3.3.1.2 Techniques and terms to be defined</li> </ul> </li> </ul> </div>	

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3.3.2	Laboratory testing <ul style="list-style-type: none"> <li>• Trainee must complete at least 9 months of casework under direct supervision. This may include real and mock cases.</li> </ul>	
3.3.3	Oral exercises <ul style="list-style-type: none"> <li>• Technical review sessions</li> </ul>	
3.3.4	Courtroom exercises <ul style="list-style-type: none"> <li>• Trainee must be capable of answering questions such as would be expected in a courtroom scenario.</li> </ul>	
3.4	<b>Examination Questions</b>	
3.4.1	How long and how wide is the typical VHS video tape?	
3.4.2	Explain how a video tape is put together.	
3.4.3	Define helical scan.	
3.4.4	Draw and explain the tracks which are recorded onto a video tape.	
3.4.5	How fast does the head in a VCR rotate?	
3.4.6	In SP mode, how fast is the video tape moving past the head? In LP mode? In EP mode?	
3.4.7	How is the video tape loaded into the VCR from the video cassette?	
3.4.8	How does the VCR know it is at the end of the tape?	
3.4.9	How much audio tape is contained in a typical 90-minute cassette?	
3.4.10	Draw and explain the tracks which are recorded onto an audio tape.	
3.4.11	What are the different types of audio tapes available?	
3.4.12	What is bias?	
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